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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,307	12/28/2001	Su Woong Lee	2658-0282P	2913

2292 7590 06/24/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

ERDEM, FAZLI

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,307

Applicant(s)

LEE, SU WOONG

Examiner

Fazli Erdem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

NATHAN J. FLYNN
SENIOR PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Jung et al. (6,441,401) in view of Ahn et al. (2001/0013910) further in view of Muto (4,902,638) further in view of Endo et al. (6,016,174) further in view of Kim et al. (6,429,909).

Regarding claims 1-7, Jung et al. disclose a thin film transistor array panel for liquid crystal display and method for repairing the same where a gate line extending in a horizontal direction is formed on an insulating substrate, and a data line is formed perpendicular to the gate line defining a pixel of a matrix array. Pixel electrodes receiving image signals through the data line are formed in a pixel, and a thin film transistor having a gate electrode connected to the gate line, a source electrode connected to the data line, and a drain electrode connected to the pixel electrode is formed on the portion where the gate lines and the data lines intersect. Jung et al. fail to disclose the required repair/overlap/electrode structure, auxiliary TFT, auxiliary/overlap structure, and channel structure. However, Ahn et al. disclose an array substrate for use in LCD device where the required repair/overlap/electrode structure is disclosed. Furthermore, Muto et al. disclose a thin film transistor, method of repairing the thin film transistor and display apparatus having the thin film transistor where the required auxiliary TFT structure is disclosed. Endo et al. disclose a method for manufacturing electro-optical

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element where the required auxiliary/overlap structure is disclosed. Finally, Kim et al. disclose liquid crystal displays and manufacturing methods thereof where the required channel structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required repair/overlap/electrode structure, auxiliary TFT, auxiliary/overlap structure, and channel structure in Jung et al. as taught by Ahn et al., Muto, Endo et al., and Kim et al. in order to have a liquid crystal display device with better performance.

2. Claims 8-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Jung et al. (6,441,401) in view of Kim et al. (6,429,909) further in view of Muto (4,902,638) further in view of Endo et al. (6,016,174) further in view of Bae et al. (6,256,076).

Regarding claims 1-7, Jung et al. disclose a thin film transistor array panel for liquid crystal display and method for repairing the same where a gate line extending in a horizontal direction is formed on an insulating substrate, and a data line is formed perpendicular to the gate line defining a pixel of a matrix array. Pixel electrodes receiving image signals through the data line are formed in a pixel, and a thin film transistor having a gate electrode connected to the gate line, a source electrode connected to the data line, and a drain electrode connected to the pixel electrode is formed on the portion where the gate lines and the data lines intersect. Jung et al. fail to disclose the required repair/overlap/electrode structure, auxiliary TFT, auxiliary/overlap structure, and channel structure. However, Kim et al. disclose liquid crystal displays and manufacturing method thereof where the required repair/overlap/electrode structure

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is disclosed. Furthermore, Muto et al. disclose a thin film transistor, method of repairing the thin film transistor and display apparatus having the thin film transistor where the required auxiliary TFT structure is disclosed. Endo et al. disclose a method for manufacturing electro-optical element where the required auxiliary/overlap structure is disclosed. Finally, Bae et al. disclose liquid crystal displays having switching elements and storage capacitors and a manufacturing method thereof where the required channel structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required repair/overlap/electrode structure, auxiliary TFT, auxiliary/overlap structure, and channel structure in Jung et al. as taught by Kim et al., Muto, Endo et al., and Bae et al. in order to make a liquid crystal display device with better performance.

3. Claims 12-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Jung et al. (6,441,401) in view of Ahn et al. (2001/0013910) further in view of Muto (4,902,638) further in view of Endo et al. (6,016,174) further in view of Bae et al. (6,256,076).

Regarding claims 1-7, Jung et al. disclose a thin film transistor array panel for liquid crystal display and method for repairing the same where a gate line extending in a horizontal direction is formed on an insulating substrate, and a data line is formed perpendicular to the gate line defining a pixel of a matrix array. Pixel electrodes receiving image signals through the data line are formed in a pixel, and a thin film transistor having a gate electrode connected to the gate line, a source electrode connected to the data line, and a drain electrode connected to the pixel electrode is formed on the portion where the gate lines and the data lines intersect. Jung et

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al. fail to disclose the required repair/overlap/electrode structure, auxiliary TFT, auxiliary/overlap structure, and channel structure. However, Ahn et al. disclose an array substrate for use in LCD device where the required repair/overlap/electrode structure is disclosed. Furthermore, Muto et al. disclose a thin film transistor, method of repairing the thin film transistor and display apparatus having the thin film transistor where the required auxiliary TFT structure is disclosed. Endo et al. disclose a method for manufacturing electro-optical element where the required auxiliary/overlap structure is disclosed. Finally, Bae et al. disclose liquid crystal displays having switching elements and storage capacitors and a manufacturing method thereof where the required channel structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required repair/overlap/electrode structure, auxiliary TFT, auxiliary/overlap structure, and channel structure in Jung et al. as taught by Ahn et al., Muto, Endo et al., and Bae et al. in order to make a liquid crystal display device with better performance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (703) 305-3868. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

FE

June 16, 2003
